State of Iowa - Return on Investment Program / IT Project Evaluation

SECTION 1: PROPOSAL

Tracking Number (For Project Office Use)

Project Name: **Electronic Voter Registration / Election Management System**
Agency Point of Contact for Project: Dean Lerner

Agency Point of Contact Phone Number / E-mail: 281-7563 dlerner@sos.state.ia.us
Executive Sponsor (Agency Director or Designee) Signature: Chester J. Culver, Secretary of State _____

Is this project necessary for compliance with a Federal standard, initiative, or statute? (If "Yes," cite specific requirement, attach copy of requirement, and explain in Proposal Summary)	❑ Yes	X❑ No
Is this project required by State statute? (If "Yes," explain in Proposal Summary)	❑ Yes	X❑ No
Does this project meet a health, safety or security requirement? (If "Yes," explain in Proposal Summary)	❑ Yes	X❑ No
Is this project necessary for compliance with an enterprise technology standard? (If "Yes," explain in Proposal Summary)	❑ Yes	X❑ No
Does this project contribute to meeting a strategic goal of government? (If "Yes," explain in Proposal Summary)	X❑ Yes	❑ No
Is this a "research and development" project? (If "Yes," explain in Proposal Summary)	❑ Yes	X❑ No

PROPOSAL SUMMARY:

In written detail, explain why the project is being undertaken and the results that are expected. This includes, but is not limited to, the following:

1. A pre-project (before implementation) and a post-project (after implementation) description of the system or process that will be impacted.

The current voter registration system and the current elections system are separate, non-integrated systems. The interrelated nature of elections and voter registration can be more efficiently and effectively dealt with through a computer system which interrelates and integrates the various functions of elections and voter registration.

The current voter registration system is a 1970's vintage mainframe system. This system is inflexible, labor intensive, and difficult to communicate with when dealing with the various stakeholders, especially those with more modern computer systems. The nature of the current system makes it more difficult than it should be to identify and track registered voters, especially as they move from county to county within Iowa. The nature and vintage of the current system makes it more difficult than it should be to identify felons who are registered to vote so that they may be removed from the database of eligible voters, both because of the inflexibility of the current system and because of the difficulties in communicating between the current system and state and federal court systems. The same is true of processing information related to individuals who are adjudged mental incompetents. Removing deceased voters from the registration database is also complicated by the system's inflexible nature, and the way in which the system mandates the transfer of deceased information from the Department of Health. Difficulties in communication between the voter registration system and the various voter registration agencies is demonstrated by the recent difficulties related to individuals who believed they had registered to vote at the Department of Transportation. Communication difficulties also exist between the various county auditors' offices and the state voter registration system which are attributable to the realities of a mainframe system that is a 1970's vintage system. The State and County systems are required to coordinate, but because of the nature of the various systems, coordination is lacking. All of these difficulties culminate in a voter registration database that is not as accurate as it should be or as the voters expect it to be. These inaccuracies adversely impact programs which are dependent upon an accurate database, such as the NCOA program, which seeks to "cleanup" state voter registration files by using post office based information about individuals changing residence addresses. In addition, an inaccurate database means that the voter registration lists provided to requesting persons are not as accurate as they should be. Further, with the current voter registration system, it is going to be extremely labor intensive, expensive, and difficult to change all of the voter registration records which will be impacted by the upcoming redistricting/reprecincting.

The elections system is also old and inflexible. For example, the lowest common denominator applies when obtaining election results on election night. The Elections Division must receive the results from each county auditor by facsimile. There is no integration between the elections system and the voter registration system. The current voter registration system and the current elections system are not serving the stakeholders (voters, county auditors, voter registration agencies, court administrators, state agencies, and the public in general) as well as they should be served, given the current capabilities of computer technology.

A significant number of states have recently obtained new voter registration and elections systems. In many of these situations, the states have gone from antiquated mainframe based systems to modern PC-based systems. While it will be necessary to analyze the current Iowa systems in more detail before deciding on the specifics of a new system, it is anticipated that the result will be a PC-based voter registration and elections system.

A new voter registration system would facilitate the timely and accurate transfer of voter registration information and do so in a less costly and less labor intensive manner. A new system will be able to better interface between the wide variety of county voter registration systems. A

new system will also be able to interface with developing computer systems of court administrators and federal prosecutors to more accurately and timely transfer information about convicted felons and those individuals adjudged mentally incompetent. A new voter registration system will be able to interface with the Department of Health system which is planned to more accurately and timely remove deceased persons from the voter registration database. A new system will allow more accurate and timely communication between State and County voter registration systems and state agencies, especially DOT. A new voter registration and elections system will better assure that Iowa is in compliance with federal law, including the federal "motor voter" law. A new system will allow the NCOA program to better assist in making changes to voter records when a person has changed residences. With a new system, all voter list requesters will receive more accurate lists. A new system will better facilitate changes to voter records required by redistricting/reprecincting. In short, a new system will result in a voter registration database which is much more flexible, more accurate, less labor intensive, and, therefore, better able to serve the various stakeholders.

A new system which includes both voter registration and elections will remove duplication now required because the two systems are not integrated. With implementation of modern systems at the county level, a new state system could lead to quick and accurate statewide election result reporting. A new elections system will enable the elections division to provide more timely, accurate and professional reporting, statistics, and certification.

A new system should ultimately reduce costs to the various stakeholders, because the ongoing costs of a new PC-based system should be much less than the current costs attributable to the use of the state mainframe system.

It is not anticipated that a new system will reduce the current six FTEs staffing elections and voter registration. However, a new system should allow those FTEs to provide more accurate, increased, and better services. A new system will be less labor intensive. Therefore, staff will have time to do things which are necessary, but which they currently are unable to do for lack of time. For example, it will allow staff to train county auditors and their staffs, voter registration agency staffs, and poll workers, all of which will result in a better elections/voter registration program for Iowa.

Implementation of a new voter registration and elections system will better assure the voter registration database is accurate, thereby assuring that all registered voters who are eligible to vote in an election are allowed to vote and that all persons not eligible to voter in an election are prevented from voting. This is what Iowa citizens expect, and this is what the State of Iowa should provide.

2. A summary of the extent to which the project provides tangible and intangible benefits to either Iowa citizens or to State government. Included would be such items as qualifying for additional matching funds, improving the quality of life, reducing the government hassle factor, providing enhanced services, improving work processes, complying with enterprise technology standards, meeting a strategic goal, avoiding the loss of matching funds, avoiding program penalties/sanctions or interest charges, avoiding risks to health/security/safety, complying with federal or state laws, etc.

A new voter registration/election management system (VREMS) will benefit a large number of citizens, State of Iowa government, County and local governments and the Elected Officials of the

State of Iowa. A common database for registered voters will allow every election worker, official and candidate at every level of government a single, well-maintained and accurate list of the voters of the state. By performing this function with a common system it can be a better run, more accurate, higher quality system for less money than would be required to operate and manage many separate and idiosyncratic systems. By using modern technology, the information extrapolated from the data will be better and more timely. Officials will be able to run better election processes, candidates will be able to access better, more timely voter information and the citizens of the State of Iowa will have reason to have higher confidence in the quality of their election processes and results.

With a new system in place, required maintenance and changes will be much easier. As improvements are made to Department of Transportation, Department of Health, and Criminal and Courts systems, the major functions can be automated, thus reducing the labor involved in maintaining the data. Redistricting will be immensely easier. The labor-intensive job of overlaying the multiple layers of election districts can become a relatively simple electronic process.

It would also be possible to eventually free voters from the burden of traveling to a particular polling place. A ballot could be configured dynamically for any particular voter at any acceptable voting location. If the state were to consider electronic voting, then a VREMS would be vital in order to manage the information and process.

This system certainly forwards the Enterprise Goal of Government when and where Iowans want. But, more importantly, it instills confidence in a system that protects the integrity of each vote.

3. A summary that identifies the project stakeholders and how they are impacted by the project.

(covered above)

SECTION 2: PROJECT PLAN

Individual project plans will vary depending upon the size and complexity of the project. A project plan includes the following information:

1. Agency Information

Project Executive Sponsor Responsibilities: Identify, in Section I, the executive who is the sponsor of the project. The sponsor must have the authority to ensure that adequate resources are available for the entire project, that there is commitment and support for the project, and that the organization will achieve successful project implementation.

Organization Skills: Identify the skills that are necessary for successful project implementation. Identify which of these skills are available within the agency and the source(s) and acquisition plan for the skills that are lacking.

Personnel within the Secretary of State's office and Information Technology Department will be utilized as appropriate and available. Outside vendors familiar with this type of system will likely be required to complete some or possibly a majority of the project.

2. Project Information

Mission, Goals, Objectives: The project plan should clearly demonstrate that the project has developed from an idea to a detailed plan of action. The project plan must link the project to an agency's mission, goals, and objectives and define project objectives and how they will be reached. The project plan should include the following:

A. **Expectations**: A description of the purpose or reason that the effort is being undertaken and the results that are anticipated.

The current systems are antiquated and labor intensive and still produce a borderline acceptable product which is achieved only through ongoing heroic efforts. The current systems have long since outlived a normal useful life for such software, and impose a stiff burden on those attempting to maintain and update the systems. In a relatively short time frame, the necessary skills to maintain the systems will disappear from the State of Iowa workforce. Then, an exorbitant price will have to be paid to purchase services. The current systems rule out up-to-date information and functional improvements, due to the associated cost and difficulty of rewriting the software.

It is expected that by moving to a modern integrated system, maintenance and improvement costs will be dramatically reduced and functionality will increase. Integration with other systems will be dramatically improved and common information will be much easier to share. Service to all stakeholders will be improved.

B. **Measures**: A description of the set of beliefs, tradeoffs and philosophies that govern the results of the project and their attainment. How is the project to be judged or valued? What criteria will be used to determine if the project is successful? What happens if the project fails?

The overriding belief driving this project is that **Voting** is one of the most sacred acts in our democracy and, as such, must be maintained and supported to inspire the highest trust by all participants. With an aging and outmoded system the danger of violating that trust becomes ever more likely. The delay and difficulty in checking for disallowed voters, deceased citizens, updating records, and maintaining all the required processes of our electoral system strains the bond of trust between government and citizens. As experienced in Florida this year, that bond can be a fragile one and deserves our best effort to protect it. As we will see in Florida in the future, that bond will be expensive to repair and reestablish.

C. **Environment:** Who will provide input (e.g., businesses, other agencies, citizens) into the development of the solution? Are others creating similar or related projects? Are there cooperation opportunities?

Representatives of all stakeholders will be engaged and participate in the development of this project. State, County and Local governments, Elected Officials, Voters, Office of the Secretary of State, Executive, Legislative and Judicial branches, among others, will be engaged in the development process.

Other agencies are working on related projects and, to the extent possible, these projects will be coordinated to reduce duplication and overlap.

D. **Project Management and Risk Mitigation**: A description of how you plan to manage the project budget, project scope, vendors, contracts and business process change (if applicable). Describe how you plan to mitigate project risk.

The particular methodology will be dependent upon the development and implementation strategy chosen. These will be developed and published prior to the commencement of the project.

E. **Security / Data Integrity / Data Accuracy / Information Privacy**: A description of the security requirements of the project? How will these requirements be integrated into the project and tested. What measures will be taken to insure data integrity, data accuracy and information privacy?

The Chief Security Officer of the State of Iowa will be engaged to determine and oversee the security requirements and to ensure that the proper measures are taken and appropriate procedures are followed. That assessment will be included in the project documentation.

3. Current Technology Environment (Describe the following):

A. **Software (Client Side / Server Side / Midrange / Mainframe)**

- Application software
- Operating system software
- Interfaces to other systems: Identify important or major interfaces to internal and external systems

SOFTWARE:
The VR system is mainframe based. File maintenance is performed in batch and via 3270-type terminals in remote locations. Communication is SNA, with many remote sites attached to the DOT network. The system also supports dial-in users using TSO to achieve a daily file download using IND$ protocol. The voter master is a VSAM file with multiple indices.

Application software was developed in-house, mostly in COBOL II. One frequently used program (S076V235) is in BAL.

System software includes CICS and TSO, along with system utilities (SYNCSORT, IEBGENER, etc.) and management tools (SMS, TMS, etc.)

Communication with other systems is mostly limited to the exchange of data on various media (nine track tape, diskette, CD-ROM) and through the dial-in and SNA connections mentioned above.

B. **Hardware (Client Side / Server Side / Mid-range / Mainframe):**

- Platform, operating system, storage and physical environmental requirements.
- Connectivity and Bandwidth: If applicable, describe logical and physical connectivity.
- Interfaces to other systems: Identify important or major interfaces to internal and external systems.

HARDWARE:
The VR system uses ITD's S/390 mainframe system, with the master file using about 1200 cylinders of DASD. Other files will generally occupy another 3-4000 cylinders at any given time.

4. Proposed Environment (Describe the following):

The new environment will follow the enterprise architecture and Information Technology standards that exist at the time of the development of this system.

A. Software (Client Side / Server side / Mid-range / Mainframe)

- Application software.
- Operating system software.
- Interfaces to other systems: Identify important or major interfaces to internal and external systems.
- General parameters if specific parameters are unknown or to be determined.

B. Hardware (Client Side / Server Side / Mid-range / Mainframe)

- Platform, operating system, storage and physical environmental requirements.
- Connectivity and Bandwidth: If applicable, describe logical and physical connectivity.
- Interfaces to other systems: Identify important or major interfaces to internal and external systems.

- General parameters if specific parameters are unknown or to be determined.

Data Elements: If the project creates a new database the project plan should include the specific software involved and a general description of the data elements.

This project will use common data elements as developed for the Iowa Data Warehouse.

Project Schedule: A schedule that includes: time lines, resources, tasks, checkpoints, deliverables and responsible parties.

The schedule will be affected by the timing of the funding and the coordination needed among many different stakeholders and development research that will precede creating a system. This project does lend itself to a phased approach. Separate modules of the overall system can be developed before all of the other related systems are rewritten or developed. The preliminary work for developing a new database could begin at almost any time. Other interfaces and functional requirements can be developed either simultaneously or sequentially depending upon the necessary completion of background work or implementation on other systems.

This project schedule will be published on the project website.

SECTION 3: Return On Investment (ROI) Financial Analysis

Project Budget:

Provide the estimated project cost by expense category.

Personnel ..... $_____
Software ..... $_____
Hardware ..... $_____
Training ..... $_____
Facilities ..... $_____
Professional Services ..... $_____
Supplies ..... $_____
Other (Specify)…… $_____
Total ..... $_____

Project Funding:

Provide the estimated project cost by funding source.

State Funds ..... $_____ ..... _____ % of total cost
Federal Funds ..... $_____ ..... _____ % of total cost
Local Gov. Funds ..... $_____ ..... _____ % of total cost
Private Funds ..... $_____ ..... _____ % of total cost
Other Funds (Specify) ..... $_____ ..... _____ % of total cost
Total Cost: ..... $_____ ..... _____ % of total cost

Provide the estimated project cost by fiscal year.

How much of the cost would be incurred by your agency from normal operating budgets (staff, equipment, etc.)? ..... ……$_____ _____%

How much of the cost would be paid by requested State IT project funds? $_____ _____%

Identify, list, and quantify all annual maintenance expenses (State Share) related to the project.

Identify, list, and quantify any other future expenses (State Share) related to the project.

ROI Financial Worksheet Directions (Attach Written Detail as Requested):

Annual Pre-Project Cost -- Quantify, in written detail, all actual State government direct and indirect costs (personnel, support, equipment, etc.) associated with the activity, system or process prior to project implementation. This section should be completed only if State government costs are expected to be reduced as a result of project implementation.

Annual Post-Project Cost -- Quantify, in written detail, all estimated State government direct and indirect costs associated with activity, system or process after project implementation. This section should be completed only if State government costs are expected to be reduced as a result of project implementation.

State Government Benefit -- Subtract the total "Annual Post-Project Cost" from the total "Annual Pre-Project Cost." This section should be completed only if State government costs are expected to be reduced as a result of project implementation.

Citizen Benefit -- Quantify, in written detail, the estimated annual value of the project to Iowa citizens**.** This includes the "hard cost" value of avoiding expenses (hidden taxes) related to conducting business with State government. These expenses may be of a personal or business nature. They could be related to transportation, the time expended on or waiting for the manual processing of governmental paperwork such as licenses or applications, taking time off work, mailing, or other similar expenses.

Opportunity Value/Risk or Loss Avoidance Benefit -- Quantify, in written detail, the estimated annual benefit to Iowa citizens or to State government. This could include such items as qualifying for additional matching funds, avoiding the loss of matching funds, avoiding program penalties/sanctions or interest charges, avoiding risks to health/security/safety, avoiding the consequences of not complying with State or federal laws, providing enhanced services, avoiding the consequences of not complying with enterprise technology standards, etc.

Total Annual Project Benefit -- Add the values of all annual benefit categories.

Total Annual Project Cost -- Quantify, in written detail, the estimated annual new cost necessary to implement and maintain the project including consulting fees, equipment retirement, ongoing expenses (i.e. labor, etc.), other technology (hardware, software and development), and any other specifically identifiable project related expense. In general, to calculate the annual hardware cost, divide the hardware and associated costs by three (3), the useful life. In general, to calculate the annual software cost, divide the software and associated costs by four (4), the useful life. This may require assigning consulting fees to hardware cost or to software cost. A different useful life may be used if it can be documented.

Benefit / Cost Ratio – Divide the "Total Annual Project Benefit" by the "Total Annual Project Cost." If the resulting figure is greater than one (1.00), then the annual project benefits exceed the annual project cost. If the resulting figure is less than one (1.00), then the annual project benefits are less than the annual project cost.

ROI -- Subtract the "Total Annual Project Cost" from the "Total Annual Project Benefit" and divide by the amount of the requested State IT project funds.

Benefits Not Cost Related or Quantifiable -- List the project benefits and articulate, in written detail, why they (IT innovation, unique system application, utilization of new technology, hidden taxes, improving the quality of life, reducing the government hassle factor, meeting a strategic goal, etc.) are not cost related or quantifiable. Rate the importance of these benefits on a "1 – 10" basis, with "10" being of highest importance. Check the "Benefits Not Cost Related or Quantifiable" box in the applicable row.

ROI Financial Worksheet

Annual Pre-Project Cost - How You Perform The Function(s) Now	
FTE Cost (salary plus benefits):	
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	
A. Total Annual Pre-Project Cost:	
Annual Post-Project Cost – How You Propose to Perform the Function(s)	
FTE Cost:	
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	
B. Total Annual Post-Project Cost:	
State Government Benefit (= A-B):	
Annual Benefit Summary	
State Government Benefit:	
Citizen Benefit (including quantifiable "hidden taxes"):	
Opportunity Value and Risk/Loss Avoidance Benefit:	
C. Total Annual Project Benefit:	
D. Total Annual Project Cost:	
Benefit / Cost Ratio (C / D):	———
ROI (C – D / Requested State IT Project Funds):	____%
❑ **Benefits Not Cost Related or Quantifiable (including non-quantifiable "hidden taxes")**	

Project Cost Estimate Summary

The State of Maryland is spending $4,500,000 to produce an electronic voter registration system. The cost for the State of Virginia is over $5,000,000 and New Mexico with one-third the counties and a fraction of Iowa's population will spend $2,500,000. In Iowa the complexity of dealing with 99 counties and their disparate systems and the extent of the requirements should place the total for an Iowa system in the $4,000,000 to $5,000,000. Some of those costs will be either shared with or born by other applications being developed and will further State of Iowa strategic Information Technology goals.

There are now many efforts being undertaken and many development partnerships being undertaken by the Industry to produce systems to meet this type of need. There will be dramatic changes in the available software and equipment over the next year or two to handle voter registration and election management functions. We do have the above stated range of the cost for current systems and would be able to dramatically improve the election-related functions handled by the Secretary of State's office with one of the currently available systems or by custom building a system as Virginia is doing.

Further information from other states is available upon request.